



People • Service • Environment  
ALTA ENVIRONMENTAL SERVICES, INC.

April 6, 2006

Mr. Bill Brattain  
California Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670-6114

**RE: Comments to the Draft General Waste Discharge Requirements and Monitoring and Reporting Program for Discharges of Green Waste for Composting within the Central Valley Region**

Dear Mr. Brattain:

On behalf of Feather River Organics Compost Facility (Yuba County), Jepson Prairie Organics Compost Facility (Solano County), and South Valley Organics Compost Facility (Santa Clara County), Alta Environmental Services is providing this letter commenting on the *Draft General Waste Discharge Requirements and Monitoring and Reporting Program for Discharges of Green Waste for Composting* (General WDRs) dated February 10, 2006. The proposed General WDRs describes the Regional Water Quality Control Board's (RWQCB) minimum requirements for the operation and water quality monitoring of all existing and future facilities that conduct green waste composting in the Central Valley Region. The Draft General WDRs represent the first for green waste compost operations in California. The outcome of the development of these General WDRs will set an important precedent for other RWQCB throughout the State to follow.

In general, we agree that there is a need for waste discharge requirements since the expiration of the Resolution 96-031 (Compost Waiver); however, we feel that the changes between the Compost Waiver and the Draft General WDRs are significant and will be difficult to implement within the timeframe suggested in the Draft General WDRs. The Compost Waiver detailed more performance-based standards, such as "the Discharger shall design, construct and maintain the areas used for storage and treatment of green waste, food processing waste, agricultural waste, or paper waste and additives to control and manage all runoff, runoff, and precipitation which falls onto or within the boundaries of the storage and treatment areas." This allowed a facility the flexibility to assess their site-specific conditions, such as hydrology and geology, and propose appropriate controls to protect water quality. The Draft General WDRs, on the other hand, take a more prescriptive standard approach that dictates design requirements for pads and runoff/runoff controls, regardless of the site-specific conditions. As such, any Discharger that operated under the Compost Waiver will face significant challenges (operationally and financially) to comply with the more stringent, prescriptive requirements of the Draft General WDRs.

It is unclear why the stricter requirements are proposed despite the RWQCB's findings that green waste poses fewer risks. The Draft General WDRs finds that the "threat of water quality degradation represented by the waste constituents is not commensurate with the stringent Title 27 standards applicable to a Class II waste pile due to the nature of the waste and activity." [Finding 7] In addition, the RWQCB states that given "the reduced risk to water quality from green waste composting, degradation of groundwater can be prevented with alternative technologies less stringent and less costly than the Title 27 prescriptive standards for waste piles." [Finding 8] Finally, the purpose of adopting general WDRs for discharges of green waste is to provide an efficient and cost effective means for allowing properly managed green waste operations to continue converting this diverted material into useful compost in a manner that protects water quality [Finding 13]. It is in this light, that we provide detailed comments below.

## FINDINGS

2. *With the passage of Senate Bill 390, the composting Waiver (Resolution No. 96-031) sunsetted on 1 January 2003, leaving composting facilities formerly covered under the Composting Waiver unregulated under either WDRs or a waiver of WDRs with respect to the discharge of waste to land (such regulation is required by CWC Section 13263).*

The Draft General WDRs specify four types of waste discharge requirements for green waste operations: general order, individual WDRs not subject to Title 27, individual Title 27 WDRs, or to deny the issuance of WDRs for the discharge, each being more stringent than the next. Please explain why the "waiver of WDRs with respect to the discharge of waste to land" is not an option for the RWQCBs. Please also explain how the more stringent Draft General WDRs are justified considering the waste's "reduced risk to water quality."

37. *The Regional Board has considered the requirements of the State Water Board Resolution No. 68-16 and finds that the degradation of groundwater or surface water by the select group of dischargers described in this General Order is not consistent with maximum benefit of the people of the state. Therefore, this General Order includes requirements that will result in the best practicable treatment or control of the discharge to prevent degradation of groundwater and surface water.*

Based on the Questions and Answers memorandum dated February 16, 1995, Resolution No. 68-16 allows for discharges if it is demonstrated that any change in water quality will be consistent with the "maximum benefit to the people of the state." Absent a definition within the Draft General WDRs, "maximum benefit" is determined on a case-by-case basis given the reasonable circumstances of the site. Reasonable factors to consider in making this determination include (1) past, present, and probable beneficial uses of the water; (2) economic and social costs of the proposed discharge compared to the benefits for both the discharger and the affected public; (3) environmental aspects of the proposed discharge; and (4) implementation of feasible alternative treatment or control methods. With this variation in mind, it would be difficult for the Discharger to provide the maximum benefit without the flexibility to address all factors. The Discharger should be able to propose on a case-by-case basis how they will comply with this policy, including being allowed to discharge if the beneficial uses are not impaired, the costs

affect both the Discharger and the public, and the environmental aspects based on site-specific factors.

## PROHIBITIONS

- A.4. *The addition of liquids, including ambient rainfall, to feedstock, compost (active or finished), Additives, or Amendments in excess of the material's moisture holding capacity (i.e., the amount of moisture it can hold without producing free liquids) is prohibited unless the Facility is underlain by a composite liner system (such as those facilities operating on a compositely-lined landfill) or includes approved composting and storage pads meeting the requirements of Discharge Specification No. B.21 of this Order.*

Please provide justification why a composite liner system or other approved surface is required for this type of discharge. Besides the one data set from a composting operation in San Joaquin County, does the RWQCB have groundwater data, surface water data, or additional storm water data for these types of systems and their effectiveness to show the need for this type of system?

- A.5. *The discharge of leachate or process stormwater directly to the ground surface (i.e. unlined areas) outside of approved compost and storage pad areas is prohibited.*

This prohibition suggests full containment of all leachate and stormwater in contact with any material. This does not allow any flexibility for other alternative engineered controls for treatment and discharge of runoff, such as bioswales, baffles, and bioremediation efforts. Please explain how this prohibition retains flexibility with the General WDRs.

- A.7. *The discharge of wastes, process stormwater, leachate, or washwater to surface waters or surface water drainage courses is prohibited, except as specifically allowed under an individual NPDES permit applicable to the discharge.*

Please clarify if an individual NPDES permit for industrial discharge, not a stormwater permit for industrial discharges, is required in this situation. If an individual industrial NPDES permit is required, how will it comply with Prohibition A.5 above, if allowed to use natural bioremediation to treat the discharge to effluent standards (i.e. bioswales)?

- A.10. *The use of food processing waste feedstock in greater than 10%, by dry weight basis, in compost at the Facility is prohibited.*

Please clarify the basis for prohibiting food processing waste greater than 10% in the process. The Negative Declaration for the Compost Waiver included food-processing waste and allowed the use of food-processing waste to be composted with green waste in no specific amount.

## DISCHARGE SPECIFICATIONS

- B.3. *All portions of pads shall have a minimum of one percent (1%) slope and shall be designed and constructed to maintain adequate drainage to prevent ponding.*

Please provide the basis for the 1% prescriptive standard for slopes on a surface. The Compost Waiver specified that surfaces should be designed, constructed and maintained to reliably transmit most of the liquid generated during storage and treatment of waste laterally across the upper surface of the layer. The language in the Compost Waiver is consistent with Discharge Specification 6.a. and will account for situations when a slope less than 1% is necessary to comply with the erosion requirement of B.6.a.

B.6.b. *For a run-off control system that includes a runoff retention basin, to have the capacity to hold all process stormwater, compost leachate, and washwater that flows to it, and all ambient rainwater that falls into it, under conditions of a 100-year annual return wet season, while maintaining at least two feet of freeboard (taking into consideration evaporation and water that is reused in the compost;*

Please clarify what is meant by "for a run-off control system **that includes** a runoff retention basin" (bold added for emphasis). It is unclear whether this statement dictates the use of a retention basin or allows the Discharger to choose to include one. In addition, please provide the basis for the 100-year annual return wet season requirement. The Compost Waiver specifies a design for a 24-hour, 25-year storm event. If a run-off retention basin is required, then this Draft General WDR does not allow for any flexibility for other "efficient and cost effective means for allowing properly managed green waste operations to continue converting this diverted material into useful compost in a manner that protects water quality."

- B.8. *All runoff retention basins and washwater basin shall include one of the following:*
- a. *a liner system that includes a synthetic geomembrane of at least 60-mil thickness or a composite liner system consisting of a synthetic geomembrane of at least 60-mil thickness and one-foot of compacted clay with maximum permeability of  $1 \times 10^{-6}$  cm/s (or geosynthetic clay liner), depending on site-specific conditions such as the feedstock and Additives/Amendments to be used, depth to groundwater, and background groundwater quality; or*
  - b. *an equivalent or better engineered alternative liner system as proposed in an approved NOI.*

Please provide the basis for requiring this standard on any liquid run-off. This prescriptive requirement does not allow flexibility for other stormwater runoff control options. In addition, this standard is also similar to a Title 27 landfill containment unit for Class III waste.

- B.9. *The Discharger shall reuse water to the extent feasible in any runoff retention basin and any washwater basin to maintain capacity in the basins, to prevent violation of the freeboard requirement, and to prevent evapoconcentration of the water during the dry season.*

Please clarify why evapoconcentration is an issue if the RWQCB is requiring a lined pond.

- B.12. *All composting and storage aspects of the Operation shall be conducted in a manner that does not cause, or threaten to cause, a condition of pollution, or nuisance (including odors.)*

Please clarify how odor affects water quality. Odors are currently regulated by the County and Air Board agencies. Why duplicate efforts?

**B.13. Other Components:**

- a. Additives: The use of Additives is allowed, provided that their use and storage, as described in the approved NOI, does not pose a threat to water quality, and provided that, Additives other than water total no more than 30% - on a dry-weight basis - of the total feedstock for any given batch of compost. Approved Additives consist of:*
  - i. Horse manure, steer manure, and used animal bedding materials;*
  - ii. Chemical fertilizers, when applied at rates that will be consumed or fixed during the composting process;*
  - iii. Water, and*
  - iv. Any material the Executive Officer approves, via approval of the NOI.*

Please clarify the basis for 30% requirement on additives. The use of additives is to improve the compost quality or is an essential part of the compost process (i.e. water). As such, amounts may vary widely depending on the feedstock. If the RWQCB controls this requirement, they are essentially controlling the types of compost a facility can manufacture. If the requirement applies to the overall use and storage of additives so that it does not pose a threat to water quality, why would the RWQCB dictate the amount to each "batch of compost"?

- B.15.** *The Discharger shall not over-apply water to compost such that leachate discharges to the surface of the pads or the ground and, during the dry season, shall immediately collect any leachate that does form and return it to the compost.*

If the process is conducted on an impermeable pad, all liquids are contained, and liquids may be reused on the site, why have the requirement for "immediate" collection and return? In addition, during the dry season, any leachate that forms on the pad will most likely evaporate.

- B.21.** *For those facilities that allow materials to become saturated (those that have not demonstrated in an approved NOI that materials will remain unsaturated), and except for those facilities conducting composting operations within an area with a composite liner system, all composting and storage pads shall include a component of at least one of the following:*

Please clarify how these prescriptive standards were determined and how the cost-benefit analysis was determined. The Composting Waiver specified performance standards, not prescriptive. How does this allow for "flexibility," as stated in the RWQCB's cover letter, if the minimum design requirements have already been determined by the RWQCB?

## **PROVISIONS**

- E.7.a** *At least 30 days prior to terminating Operations in accordance with the approved clean closure plan (a part of the NOI), the Discharger shall submit a complete Notice of*

*Termination (NOI), which is attached hereto as Attachment D and made part of this order by reference, and a technical report demonstrating completion of clean closure in accordance with the plan in the approved NOI.*

Clean closure is a requirement for waste piles and land treatment units in Title 27. If the water quality degradation is not commensurate with Title 27 standards for waste piles, why invoke the clean closure requirement, especially if a facility chooses to use concrete or asphalt?

*E.7.b. At least 140 days prior to initiating a major change in the Green Waste Operation, the Discharger shall submit a NOI Update proposing and substantiating such change. Upon approval by the Executive Officer, a revised NOA will be issued.*

Please describe what constitutes a major change.

*E.14. In the event that the Discharge does not comply, or will be unable to comply, with any prohibition or limitation of this General Order, the Discharger shall notify Regional Board staff by telephone as soon as (but not later than 24 hours) it or its agents have knowledge of such noncompliance or potential for noncompliance and shall confirm this notification in writing within two weeks. The written notification shall be in the form of a technical report and, if appropriate, a proposed NOI Update & under Provision No. E.4) stating the nature, time, and cause of noncompliance, the changed or additional procedures or measure that will prevent continued or repeated occurrence of the incident, and shall include a timeline for corrective actions.*

The requirement for a written notification in the form of a technical report (certified by a registered professional) is more stringent than notification requirements required for landfills. The landfill requires notification in writing, not a technical report. Please explain why, when green waste has been found to pose less of a risk, the notification measures are more severe than those required for landfills.

## **MONITORING AND REPORTING PROGRAM**

### *A. Runoff Retention and Washwater Basin Monitoring*

Table 1 requires that odors be monitored on a daily basis. The RWQCB specifies that the Discharger shall record whether odors were observed, and if so, the relative magnitude and estimated extent of the odors, the estimated wind direction and speed, and any measure taken to reduce or eliminate the odors. Please clarify the RWQCB's jurisdiction on this condition. The County and Air Board agencies inspect for odors throughout the facility. In addition, given the subjectivity of the required observations, please describe how the RWQCB quantifies the "relative magnitude and estimated extent of the odors."

### *B. Leachate Generation Monitoring*

The Draft General WDRs specifies that the Discharger shall monitor all active and finished compost, additives, and amendments for generation of leachate on a **daily** basis. The Discharger

shall record whether leachate was observed, and if so, the location, estimated quantity, and whether it was collected and returned to the compost. Please clarify why this requirement is necessary if a facility is constructed on approved surface and all liquids are contained.

## CONCLUSIONS

Composting is considered a natural process and beneficial use of materials that would otherwise be disposed of in a landfill. In addition, it is an acceptable method to reach waste diversion goals that were promulgated by the state. Compost provides nutrients (slow release) and soil biota as an amendment; suppresses plant diseases; provides natural form of weed control; binds contaminants such as heavy metals; degrades organic compounds such as volatile organic compounds; is used to restore wetlands; and provides erosion control. As written, the existing Draft General WDRs unjustifiably threaten the organics markets and several State-sponsored organics recycling programs.

We appreciate the opportunity to provide comments to the Draft General WDRs and look forward to your response on each issue we have listed above. If you have any questions or need additional information, please contact me at (707) 693-2113.

Sincerely,

A handwritten signature in cursive script, appearing to read "Stephanie Young", with a red mark above the "y".

Stephanie Young  
Landfill Engineer